

REMARKS

The above amendments and these remarks are responsive to the Office Action issued on August 23, 2006. By this response, claims 16-18 and 20 are cancelled without prejudice, and claims 1-4 and 13 are amended. Claims 21 and 22 are newly presented. No new matter is added. Claims 1-15, 19, 21 and 22 are now active for examination.

The Office Action

The Office Action rejected claims 1, 2, 4, 13 and 19 under 35 U.S.C. 102(a) as being anticipated by Kojima et al. (U.S. Patent No. 6,542,793). Claim 3 was rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima et al. and in view of Kai (U.S. Patent No. 6,226,571). Claims 5-12, 14 and 15 were objected to as being dependent upon a rejected base claim, but would be allowable if they are rewritten independent form including all of the limitations of the base claim and any intervening claims.

The Telephone Interview

The Examiner is thanked for the courtesy for a telephone interview on November 2, 2006 to discuss issues related to the Office Action. During the telephone interview, differences between the invention and the Kojima reference were discussed. A proposed amendment to claim 1 was presented for consideration by the examiner. Specifically, the proposed amendment changes the language "that detects," "that calculates," "that adjusts," and "that corrects" to "configured to detect," "configured to calculate," "configured to adjust," and "configured to correct," respectively. Previously, the Office Action contended that the original language of claim 1 recites only functions of the devices and therefore not limiting. After reviewing the

proposed amendment and discussions of related MPEP sections, the Examiner agreed that the proposed amendment would provide limiting weight specifying the claimed invention.

Furthermore, the Examiner acknowledged that the Kojima reference does not meet various claim features of claim 1, and suggested that the claims would be allowable if the term “vehicle operation device” is amended to “a steering device or an accelerator pedal.”

By this Response, independent claim 1 and other relevant dependent claims are amended as suggested by the Examiner. Appropriate support for the amendment can be found in, for instance, Figures 1 and 8, page 13, line 2 through page 14, line 23, page 27, lines 5-12, page 28, line 24 through page 29, line 5 of the written description.

It is submitted that the claims are now in condition for allowance. Favorable reconsideration of the claims is respectfully requested.

The Rejection Under 35 U.S.C. 102(a) Are Overcome

In rejecting claim 1, it is noted that the Office Action replicated the reasons for rejection presented in an earlier office action dated July 11, 2005, and further asserted that Kojima anticipates the claimed system because Kojima includes all the claimed elements, and the descriptions associated with each elements are functional limitations that are not limiting.

It is submitted that Kojima does not anticipates claim 1 after the proposed amendment because (1) Kojima does not disclose all the structural limitations of claim 1, and Kojima’s system is structurally different from the claimed system. Specifically, Kojima does not describe a reaction force adjustment device configured to adjust a reaction force based on a calculated risk presented around the vehicle, as described in claim 1. According to an embodiment described in the specification, the reaction force adjustment device may be implemented using a CPU using specific control flow described in the specification. It is

understood to people skilled in the art that a CPU processes data and generates intended results **by executing instruction code** implemented in the form of software, firm ware, microcode or any type of machine-readable format. Without specific software, the CPU cannot perform intended actions or process data in an intended way. In other words, a piece of blank CPU hardware cannot perform the designated acts as described in claim 1. Rather, CPU must be combined with software specifically embodying the concepts described in this application in order to perform the designated acts described in claim 1. The control flow and calculation as described in claim 1 are very specific and are **not inherent in a blank piece of CPU or in the controller of Kojima**. Accordingly, the system as described in claim 1 and the mere recitation of a controller in Kojima are structurally different. As discussed during the telephone interview and **agreed** upon by the examiner, since MPEP sections 2114 and 2115 deal with prior art having structurally similar elements, and as discussed earlier Kojima and the proposed claim 1 are structurally different, these MPEP sections do not apply.

It is further submitted that Kojima does not describe a reaction force adjustment device **configured to adjust** a reaction force **based on a calculated risk** presented around the vehicle, as described in claim 1. The Office Action asserts that Figure 25 of Kojima purportedly discloses a risk potential calculation device 38. However, according to the specification of Kojima, controller 38 is used to control the operation of a vehicle, such as the engine, transmission, braking, acceleration, etc., based on vehicle operation data like speed, relative distance between vehicles, etc. (see col. 15, lns. 38-59 of Kojima). In other words, controller 38 is similar to an automatic driving system that takes over the driving from a driver. Although Kojima's system might consider certain factors (such as relative speed or distance, which may be arguably comparable to "risk potential") in performing the automatic driving, Kojima's controller **does not use a calculated risk in adjusting the reaction force applied to the brake pedal**. In other

words, the controller in Kojima does not adjust a reaction force applied to the brake pedal according to a calculated risk potential.

Rather, Kojima's system merely increases the reaction force based on a setting of a "footrest button" of the running-mode setting switch 39 (see col. 15, Ins. 59-66). This setting, however, has nothing to do with a calculated risk potential. Therefore, Kojima does **not** disclose "a reaction force adjustment device configured to adjust reaction force characteristics of a steering device or an accelerator pedal based upon the risk potential," as described in claim 1.

In addition, Kojima's system does not detect an external influence which will affect an operation of the steering device or the accelerator pedal, and adjust the reaction force accordingly. Therefore, Kojima does **not** disclose "an external influence detection device that detects an external influence which will affect an operation of the vehicle operating device by a driver; and a reaction force correction device that corrects the reaction force characteristics of the vehicle operating device adjusted by the reaction force adjustment device, based upon detection results obtained by the external influence detection device," as described in claim 1.

Incidentally, Kojima's system includes the use of sensor devices shown in Figure 25. However, these sensors only provide information for automotive driving or cruise control. Kojima does **not further correct** the reaction force that is already adjusted by the reaction force adjustment device based upon the risk potential. Thus, Kojima does not teach "an external influence detection device configured to detect an external influence which will affect an operation of the steering device or an accelerator pedal by a driver; and a reaction force correction device configure to correct the reaction force characteristics of the steering device or an accelerator pedal adjusted by the reaction force adjustment device, based upon detection results obtained by the external influence detection device," as described in claim 1. Accordingly, claim 1 is patentable over Kojima.

Claims 2-15 and 19, directly or indirectly, depend on claim 1. Therefore, claims 2-15 and 19 is patentable over Kojima by virtue of their dependencies from claim 1.

The Rejection Under 35 U.S.C. 103(a) Is Overcome

Claim 3 depends on claim 1 and was rejected as being unpatentable over Kojima et al. and in view of Kai (U.S. Patent No. 6,226,571). As discussed earlier, Kojima fails to disclose every limitation of claim 1. Kai also fails to alleviate these deficiencies. Therefore, Kojima and Kai, even if combined, do not meet every limitation of claim 1, the features of which are incorporated into claim 3 by virtue of its dependency. Accordingly, claim 3 is patentable over the documents of record

New Clams 21 and 22 Are Patentable

New claim 21 depends from now allowable claim 1. Therefore, claim 21 also is patentable.

New claim 22 is a method claim closely tracks the descriptions of claim 1. Thus, claim 22 also is patentable for at least the same reasons as for claim 1.

Request for Acknowledgement of Prior Art

Incidentally, it was noted that the Office Action dated July 11, 2005 attached various PTO-1449 forms with Examiner's initials confirming considerations of publications that were previously submitted by Applicant. However, as pointed out in Applicant's response dated Oct. 11, 2005, the Examiner's initial was not provided for U.S. Published Patent Application No. 2001/0003810 A1. It is respectfully requested that consideration of U.S. Published Patent

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Application No. 2001/0003810 A1 be specifically acknowledged, and an appropriately initialed PTO-1449 form be furnished.

CONCLUSION

For the reasons given above, Applicant believes that this application is in condition for allowance, and request that the Examiner give the application favorable reconsideration and permit it to issue as a patent. If the Examiner believes that the application can be put in even better condition for allowance, the Examiner is invited to contact Applicant's representatives listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to **Deposit Account 500417** and please credit any excess fees to such deposit account.

Respectfully submitted,

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